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THE WIRE-NAIL ASSOCIATION OF 1895-96.

SO lately as 1888 *The American Architect* began an article on nails in this way: "The nails commonly used in connection with building operations are too well known to require any description. They are specifically designated as plate nails."¹ That year, 1888, was almost the first in which plate or cut nails felt a real competition from wire nails. In that year the latter formed less than a fifth of the total product;² in 1895 they constituted nearly three-fourths. The idea of making nails of wire did not arise in America; in fact, our people were even somewhat slow to adopt it. The first wire nails—headed by hand and ground to a point—appear to have been made in France early in this century.³ Mr. M. Baackes, an old wire-nail manufacturer of Cleveland, says that the first machine for forming the heads was made in France about 1850.⁴ According to Mr. John Hassall, who is still engaged in making wire-nail machinery in New York city, his father was active in making and running the first wire-nail machines used in this country, early in the fifties.⁵ The business seems to have extended itself only modestly, for Mr. Baackes regards the factory which he helped to start at Covington, Ky., in 1875, as "the first mill for the manufacture of wire nails on this side of the Atlantic."⁶ The production rose from 20,000 kegs in 1880, according to Mr. Baackes's estimate, to 125,000 in 1887; and the average price fell from \$20.00 per keg in 1875 and \$10.00 in 1880 to \$4.81 in 1887. At the end of 1887 a manufacturer wrote: "Wire nails are now quoted at less than actual cost, as results will in time demonstrate."⁷ About the same

¹ *American Architect*, Aug. 18, 1888, p. 73.

² Report of American Iron and Steel Association, 1889, p. 45.

³ M. Baackes, in *Iron Age*, Jan. 2, 1896, p. 106.

⁴ *Ibid.*

⁵ *Iron Age*, April 23, 1896, p. 997.

⁶ M. Baackes, in *Iron Age*, Jan. 2, 1896, p. 106.

⁷ *Iron Age*, Jan. 5, 1888, p. 22.

time *The Iron Age*, the leading paper of the hardware trade, said editorially: "It is evident that the business is now greatly overdone."¹ The production increased, however, to more than 300,000 kegs in 1890, and to nearly 600,000 kegs in 1895; and the average price fell to \$2.85 in 1890, according to the estimate of Mr. Baackes, and to \$1.60 in 1894. At present, April 1, 1897, it is about \$1.50. These facts show how recently and how rapidly the business has attained importance, and how fast the price of wire nails has fallen.

The profits of the early wire-nail men, as first comers in the field, were doubtless good; but the cost of production at that time must not be gauged by the later selling prices. At the outset their machinery was imperfect. Then, the first nails were of small sizes, for special purposes, such as use in cigar boxes, furniture, mouldings and wagons; and small nails are relatively costly. It was not till 1886 that a list of regular or "penny" nails was published, and a serious effort was made to compete with cut nails in the general market. The wire of the first makers, too, was all of Norway iron; for they could not get any other material on which they could form a head that would not break off in driving. The H. P. Nail Co., established in 1879, is said to have been the first to succeed in using Bessemer steel wire. Finally, the price of Bessemer steel itself was at first much higher than now. Although quotations on steel billets earlier than 1887 are not available, their fall in price may be gauged by that of steel rails, which dropped from an average of \$48.25 per ton in 1879 and \$67.50 in 1880 to \$37.08 in 1887. Billets were \$32.55 on the average in 1887 and \$16.58 in 1894,² while they are now quoted at about \$15.00. It was the removal of these early limitations that made possible the great expansion of the industry.

As the business is now carried on, regular nails are sold with reference to a "base price" and a uniform schedule, or "card," of "extras." Excepting under the card made in 1895, the base has always been the same as the price of the largest nails. It

¹ *Iron Age*, Jan. 5, 1888, p. 22.

² Report of American Iron and Steel Association, 1896, p. 26.

is the base only that is named in market reports and in quotations. The extras, which are added to the base to determine the prices of the smaller sizes, are fixed by agreement of the manufacturers, and are likely to remain unchanged for several years together. From April 11, 1892, to July 19, 1895, the card was as follows:

60-d.	base (no extra)
50-d.	\$.10 extra
30-d. and 40-d.	.25 "
20-d.	.35 "
12-d. " 16-d.	.45 "
10-d.	.50 "
8-d. " 9-d.	.60 "
6-d. " 7-d.	.75 "
4-d. " 5-d.	.90 "
3-d.	1.20 "
2-d.	1.60 "

When 60-d. nails were quoted at \$.85, put up in a keg which I am assured by a manufacturer cost at least \$.09, the wire from which they were made was quoted at \$1.15. Every nail-maker who bought his wire in the market lost the whole cost of handling and manufacture, and nearly four-tenths of a cent besides, on every pound of 60-d. nails he sold. The explanation of his apparent willingness to sell below cost is found in the character of the list of extras, and in the manner in which all orders were required to be assorted. The extras on all the smaller nails were far greater than the differences in cost between them and the largest. Indeed, the wire for a keg of 12-d. nails cost no more than that for a keg of 60-d. No manufacturer would sell 60-d. alone at the market price. All orders had to be so assorted that the average of the extras on the whole should be at least \$.60 per keg: that is, if a dealer gave an order for a hundred kegs, at a base price of \$.85, he had to make it up in such a way that the average price of the whole, by the schedule, would be not less than \$1.45. So the loss on the larger and cheaper sizes was covered by the gain on the smaller and dearer. Some small manufacturers

took advantage of this artificial adjustment of prices, by making only the smaller sizes, and leaving the losing end of the schedule to the great establishments.

1. *History of the Association.*

Iron and steel products have been particularly fruitful of combinations; but before 1895 circumstances had not been favorable to bringing wire nails into the list. The manufacturers had been fairly contented, making the comfortable profits of a new and rapidly growing business. It is probable that combinations are not easily formed in any industry so long as the average man of those concerned, with average advantages, can make such a profit as the general opinion of business men pronounces fair; and that consolidation generally results from a strong sense of pressure. In this business, by the beginning of 1895, the necessary pressure had developed. The manufacturers cried out with one voice that they were ruined by competition. It must be noted, however, that most men do not consider it good policy, under any circumstances, to magnify their profits before the world; that men who have been accustomed to large profits do really imagine themselves ruined when they are reduced to not much more than ordinary interest on their capital; and that lugubrious statements, made in general terms and without figures, ought not to be taken without salt. The bulk of the wire-nail business was in the hands of six or eight great companies, which had their own wire mills and rod mills, and put the material through all the processes from the form of the steel billet. So long as smaller concerns, buying their wire in the market, continued to do business, it strains credulity somewhat to believe that the great establishments did not make moderate profits. The curious arrangement of the schedule of extras does seem to have given a certain opportunity to small makers; but the matter was in the hands of the great companies, and they would have changed the schedule if they had found it to work strongly against them. The strict requirement of assorted orders made it impossible for any maker of small nails only to do more than

a very restricted business. If any dealer bought many nails of such a maker, he could not buy his large nails at the market price.

The days of good profit to the average man with average advantages were, however, gone by; and the manufacturers — large and small alike — were in a state of mind to yield themselves plastic to the hand that could organize the machinery for increasing profits. This hand belonged to Mr. John H. Parks of Boston, who had been a member of the old firm of Loring & Parks, long well known as manufacturers of tacks. That firm combined with their principal competitors, some six years ago, in forming the Atlas Tack Corporation, which is still the giant of the tack trade; though the leading men connected with it have thought it well during the last few months to put it through a receivership and a reorganization, with the usual absorption of the interests of the smaller investors. For several years past, Mr. Parks has confined his personal attention to the promotion of combinations in various lines of hardware. Bolts and shovels, as well as tacks and nails, have known his supple hand. From a time early in the spring of 1895, he seems to have been busy in working up an agreement among the manufacturers of nails. The approaching consummation of this enterprise was announced on May 2, through *The Iron Age*, in the following words:

With a view to securing a better condition of things and correcting influences which hitherto have tended toward irregularity in prices and the unsettling of the market, the manufacturers have been conferring with a view to concerted action in this direction.

The combination began its activity with the customary declaration as to its moderate purposes with respect to price. In the article from which I have quoted, this vital matter is thus dealt with: "The manufacturers directly concerned in the movement disclaim any intention of advancing prices unreasonably, their purpose being to market their goods at a reasonable profit."

The first effect of the rise of the combination was a press of orders. Many jobbers bought all the nails that they expected

to need for six months or more. From about May 1 the manufacturers refused to accept any orders for shipment later than May 30. By May 15 the base price had risen to \$.95; and by the 20th it had become so difficult to place large orders that there was no quotable price. Some sales were, however, reported about this time at \$1.15 to \$1.20. The combination was formally completed in the last week of May, and the base price for June was fixed at \$1.20, for car lots, f. o. b. Pittsburg. All nails, no matter from what mill, were to be sold, freight paid, on the basis of the Pittsburg price, plus the rate of freight from Pittsburg to the point of destination. For instance, a customer at Anderson, Ind., would have to pay a base price, consisting of \$1.20 plus the rate of freight from Pittsburg to Anderson, whether he bought in Pittsburg, or in Cleveland, or from the mill in his own town. Jobbers were allowed a discount of five cents per keg on purchases of a thousand kegs from one mill within one calendar month; and the minimum was soon reduced to five hundred kegs. In addition, a rebate of ten cents per keg, payable after six months, was offered to jobbers who should neither buy any nails from outside makers nor sell below the association price.

The form of the association was that of a simple pool. Prices and output were always fixed for a month in advance. The agreed production was apportioned to the companies on a basis depending partly on sales for three months before the pool was formed, partly on production in one of those three months, and partly on capacity as indicated by the number of machines. Any mill could sell its privilege of production, or any part of it; but every mill was rigidly restricted to its allotment during each calendar month, unless it bought the allotment of another. A cost price was assumed, which was supposed to represent the cost of production at Pittsburg; and the cost at every other point was assumed to be equivalent to the Pittsburg cost with freight from Pittsburg added. This was because the raw material comes chiefly from the Pittsburg region. So the selling price, including delivery at the buyer's railroad station, and the assumed cost price were harmonized by the use of the

Pittsburg base. All the profits, above the cost prices so arrived at, were paid into the pool; and the amount in the pool, after paying all expenses, was divided monthly. The basis of division was the same as the basis for the allotment of production.

An inspector, hired by the association, was placed at each association mill, with the most sweeping powers of investigation. Every part of the mill, every book, every letter written or received, was open to him. So far as possible, outside owners of nail machines were hired to keep them idle, and makers of machines were hired to refuse orders for them from persons outside the association. For a year it was very difficult to buy a machine, and while the association lasted it was never easy. A company which went into the business in the autumn of 1896 writes:

We found the market in which we could buy machines was very limited, most of the machine manufacturers having entered into an arrangement with the combination to stop making them for outside parties. We were unable to obtain what we wanted, and consequently our production of nails was much below what we intended it to be when we started.

With a similar combination of Canadian nail manufacturers, the association made an agreement by which each bound itself not to offer goods in the territory of the other. Efforts were also made to induce the European manufacturers to agree to let none of their nails come to America. Although it is said that they did not meet with much success, only one large lot of nails and a few small lots were actually imported during the existence of the pool.

The agreement of the wire-nail men was accompanied by a similar agreement of the cut-nail men. Although separate in form, these two organizations acted as one. The price of cut nails was accordingly advanced with that of wire nails, at first 20 cents below, and afterwards uniformly 25 cents below — a difference not relatively greater than that which had existed before the pool was formed. Wire nails were so far preferred that, in spite of the difference in price, their competition had reduced the trade in cut nails to a fraction of its former size,

and had thrown hundreds of cut-nail machines out of use. The existence of these machines was one of the chief sources of embarrassment to the two associations. The wire-nail pool had to turn over large sums to its weaker associate, to be used in paying the owners of these old cut-nail machines to keep them idle.

The demand for nails continued very strong through June. The production for the month had been restricted somewhat, in order to ensure control of the market. Before the 12th the mills had sold their entire allotments for the month and were refusing all orders.¹ Yet, at their meeting held the week following, they made a further restriction of their output for July, reducing it to about half the average monthly product for the previous year,² and fixing the price for July at \$1.55. Dealers anticipated a further advance, and in their desire to protect themselves clamored for nails. Before July 4 some manufacturers had sold their entire allotment for the month and were again refusing orders. By the 10th, few nails could be bought from manufacturers.³ On July 18 a new "card," or schedule of extras, was adopted. The extras on 10-d. and smaller nails were not changed; but all larger sizes were put on an equality with 10-d., with an extra of 50 cents. The requirement of assorted orders, or a minimum average of extras, was abolished; but the lowest extra was now almost up to the old required average. The base price for August was made \$2.05.

The success of the nail combination had been followed by a sharp and general advance in the prices of iron and steel products, and had doubtless contributed to cause it. A market report of May 30 said: "Billets are \$17.50 and will likely be higher, and the agreement reached by the wire-nail mills is also having its effect on rods, and prices are very much higher."⁴ Between May 1 and August 1 plain wire, from which nails are made, rose from a base price of \$1.10 per cwt. to \$1.50; wire rods, from which wire is drawn, from \$21 per gross ton to \$29.00; steel billets, from which rods are rolled, from \$15.50 per gross ton to \$21.50. There seems

¹ *Iron Age*, June 13, 1895, p. 1248.

² *Ibid.*, July 11, 1895, p. 85.

³ *Ibid.*

⁴ *Ibid.*, May 30, 1895, p. 1143.

to have been what is called a good understanding between the producers in these lines, but no formal combination. On August 22, however, this announcement appeared: "The barb-wire trade has been organized on the same lines as the wire-nail trade. A sharp advance in prices has been made. Plain wire will likely advance in sympathy with barb wire."¹ On September 5 it was announced that prices of plain wire had been advanced, "as the result of an understanding arrived at by the manufacturers." The base price of wire nails was advanced to \$2.25 on September 1, "in view of the increased cost of raw material." The demand had continued good during August. In the latter part of the month, in consequence of the restriction of output, there had been some scarcity. In September the demand began to fall off notably, but the mills disposed of their allotments for the month. Trade was poor in October, and in November it was very light. The manufacturers complained particularly of the large stocks which the jobbers had on hand, and which some of them were offering rather under the combination price. The pool was strengthened in November, however, by the accession of several companies which had been operating outside.

About November 25 the only large lot of nails which has been imported into this country in many years was received by the Bigelow & Dowse Co., of Boston. Rumor puts the amount at about 5000 kegs, or 20 carloads. Several small lots were received at New York during the next year, but the largest is not believed to have exceeded 500 kegs. It is not known by what means the Bigelow & Dowse Co. were convinced that it would be better not to repeat their operation; but apparently they did not cut the association price, and they brought in no more nails. Jobbers, who investigated the matter with a view to importing, say that English nails could not at any time have been imported with profit, but that German and Belgian nails could have been laid down in Boston or New York at from 50 to 70 cents below the highest price reached by the pool, even after paying the duty of 25 per cent. It required more

¹ *Iron Age*, Aug. 22, 1895, p. 404.

courage than appears at first sight, however, to venture on placing foreign orders. The German and Belgian nails are shipped in bags, and to make them salable in the American market they must be kegged after receipt, at an expense of from 10 to 20 cents a keg. The head is formed a little differently from that of the American nail, and the tendency of human nature to reject the unaccustomed might cause some objection to it. But the chief deterrent of imports, aside from the tariff, was the power of the pool to drop the price at any time to a point that would cause the importer a very serious loss. Nothing would have been so likely to cause a drop as the fact that large foreign orders were being placed.

The duty on nails does not now serve any purpose except to increase the power of combinations. Nails are produced here as cheaply as anywhere in the world, and are regularly exported. The duty does not protect the industry, and under full competition does not affect the price. But if there had been no duty when the pool was organized, either it would not have been organized, or it would have had to content itself with a much more moderate advance. An excessive advance would have caused the other obstacles to importation to be overcome, and would have led to free purchases abroad.

In December the manufacturers gave jobbers a guaranty on their December purchases against decline in January: that is, they agreed that, if they made a reduction of price in January, they would give jobbers a corresponding rebate on such nails bought in December as they had still on hand. This policy was thereafter followed from month to month till near the breaking up of the association. It was meant to induce freer buying by the jobbers; but its success was slight. The demand for nails was exceedingly light during the winter, and the stagnation propagated itself back to the market for raw material. In a market report of Jan. 2, 1896, is this remark: "Until there is an improvement in the wire and wire-nail trades, it is not likely there will be any demand for rods." On January 16 it was stated from Pittsburg that no sales of rods had been reported in that market for some time. Early in February the nail

association announced an advance of 15 cents, to take effect March 1. This galvanized the market into a mild, convulsive movement. The operation was repeated in April, with an announcement of an advance of 15 cents to take effect May 1. Trade was very dull, however, and the manufacturers admitted that the market was a good deal disturbed by outside nails and by the offerings of jobbers. High prices had so curtailed consumption that a considerable quantity of nails, bought before the pool was formed or in its early days, was probably still in the jobbers' hands. These formed a disturbing element, in addition to the growing production of outside factories.

About April 1, 1896, the makers of steel billets formed a pool. The amount of billets in the hands of middlemen, or contracted for by them, was so great, however, that the attempt of the pool to raise prices \$3 or more per ton was only partially successful. The wire-rod makers also tried to form a pool, but after much negotiation were unable to agree. Their good understanding, however, seems to have continued.

Early in June the nail association succeeded in coming to terms with the Pittsburg Wire Co. and Baackes & Co., of Pittsburg, by which these companies agreed to stop making wire nails. Their nail mills were by no means of the first rank; but they were large enough to make a considerable figure in the market under the existing circumstances of very small consumption, and they had been selling somewhat below the association price.

If the statements of the manufacturers could be accepted freely, we should need to explain to ourselves the rather curious phenomenon of producers keeping the price of their product abnormally high, contrary to their own desires, in deference to the wishes of their customers. It was semi-officially announced that while the manufacturers came to their meeting on June 3 with the general expectation that some action would be taken looking toward a reduction in price, they were confronted with many letters from jobbers emphasizing the injury that would be done to the market by the reduction in the price of so staple a commodity as nails, and urging the manufacturers to maintain existing prices.¹

¹ *Iron Age*, June 11, 1896, p. 1384.

Such a phenomenon would not have been inexplicable if it had existed; but an examination of twenty-nine letters of jobbers on the situation, published about that time, indicates that it was essentially a myth. Two of these regarded the price as a matter which concerned no one except the manufacturers, and which no one else ought to trouble himself about. Only seven could be counted against an instant reduction, on any construction of their words. Nineteen either were opposed to the existing high prices or at least went so far as to say that, if a reduction were to come before January 1 (a matter on which they expressed no opinion), it had better come at once. The retailers were unanimous for reduction, complaining of a great falling off in their sales, which some put as high as fifty per cent. They reported that building and repairing were much interfered with.

Meantime a growing number of small mills gave the association increasing annoyance. By July 1 it was estimated that 25,000 kegs a month were made by outside mills. The total sales for June, by the association and outsiders, were estimated at 90,000 kegs;¹ while it was said that the allotment for July was 65,000 kegs,² and that the associated manufacturers did not sell so many.³ These statements were made by the Pittsburg office of the *Iron Age*, which was at the center of the movement, and which ought not, it would seem, to have sent out any but well-founded statements — at least about matters so definitely fixed as the monthly allotment. There is reason, however, for supposing that these figures were too low. A man who knows the innermost history of the combination has said that he does not think there was any month in which the manufacturers in the pool did not sell 150,000 kegs. This statement seems modest enough, considering that the average monthly production for 1895 was nearly 500,000 kegs.

Rumors of concessions and irregularities in price increased. On September 1 the guaranty to jobbers on each month's purchases against decline in the succeeding month was discontinued.

¹ *Iron Age*, July 23, 1896, p. 186.

² *Ibid.*, July 30, 1896, p. 236.

³ *Ibid.*, Aug. 13, 1896, p. 334.

It was noted with satisfaction that, in spite of the low prices which had to be made to meet foreign competition, the export trade was assuming relatively large proportions.¹ Early in September several outside manufacturers were induced, on expensive terms, to withdraw from the market. It was claimed that the production of those still outside was insignificant; but, in spite of this claim, the association lost its grip on prices to an extent far greater than at any earlier time. Chicago was the center of greatest disturbance. Nails were openly offered there by jobbers at \$2.50, and finally at \$2.25, for small lots from store, for which the association price was \$2.80. The demand, however, showed a great improvement in September, and it continued good in October. It was estimated that the total output for October would be about 250,000 kegs,² or about half the average monthly output for 1895. Soon after October 1, the manufacturers succeeded in patching up the trouble at Chicago; and about the 15th the market reports said that there was "not a suspicion of weakness in any direction," and that the association had "demonstrated its ability to control the situation." It was, nevertheless, hardly two weeks before the final break appeared. About November 1 Chicago jobbers began to offer nails from store at \$2.40. The break spread rapidly, and by the 10th the association price was merely nominal. Demand continued light. No one bought more nails than he had to have, because to-day's price was always likely to be bettered to-morrow. About November 20 nails were openly offered at Chicago at \$1.50 by representatives of association mills. On December 1 the association held its last meeting, adopted a new card of extras, and formally dissolved. The new extras on common nails are as follows:

20-d. to 60-d.	base
10-d. " 16-d.	\$.05
8-d. and 9-d.	.10
6-d. " 7-d.	.20
4-d. " 5-d.	.30
3-d.	.45
2-d.	.70

¹ *Iron Age*, Sept. 10, p. 512.

² *Ibid.*, Oct. 29, 1896, p. 837.

This schedule makes a large reduction in the relative price of small nails, which was undoubtedly intended to shut out the small manufacturers who had been making small nails only. The new card, however, comes much nearer than any previous one to representing the relative cost of large and small nails, under present conditions of manufacture.

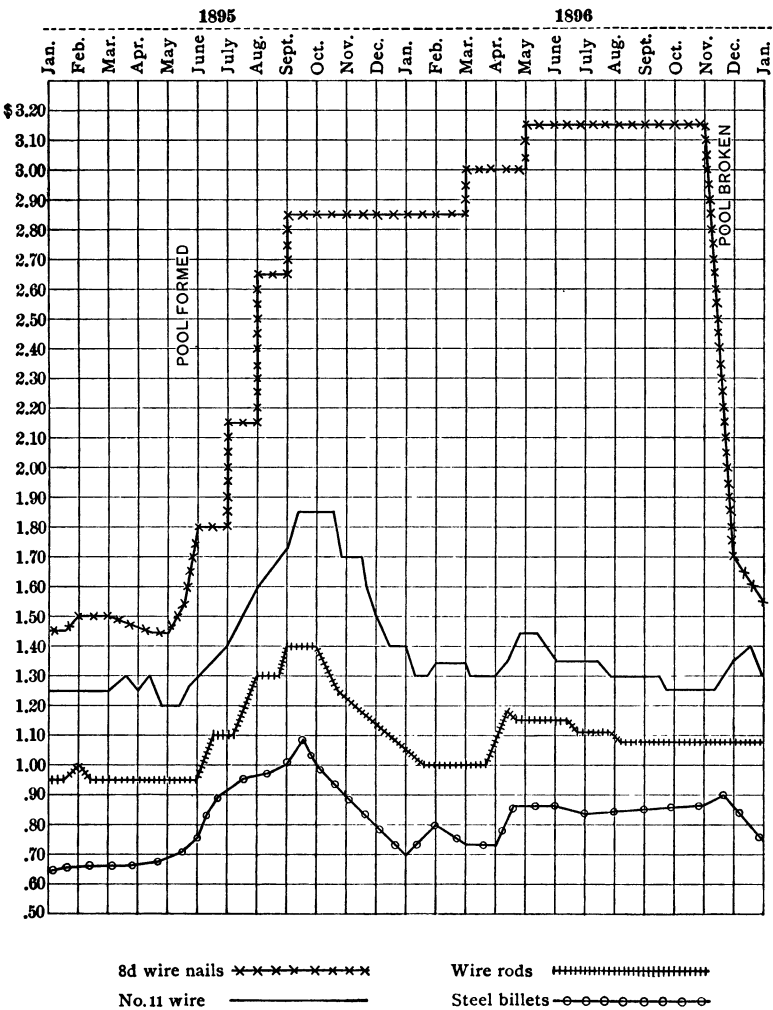
II. *The Course of Prices.*

When it is said that nails were selling on May 1, 1895, at \$.85, and that on May 1, 1896, the association made the price \$2.55, the price appears to have been multiplied within a year exactly by three. The case looks still worse when it is said that 60-d. nails sold in 1895 for \$.85 a keg, and in 1896 for \$3.05. In reality, while an ordinary bill of nails would have cost on May 1, 1896, at least \$1.70 per keg more than a year earlier, it would not have cost three times as much. No nails were sold at the nominal base price in 1896; and though 60-d. nails were nominally sold at the base rate before the change of card in 1895, the statement that the price of 60-d. nails was at one time \$.85 gives a false impression, for reasons which I have explained. A comparison of base prices after Dec. 1, 1896 with earlier ones is altogether misleading, because the present extras are much smaller. It has been estimated that a well-assorted order of nails would carry an average extra of about \$.62 on the old card, \$.70 on that of July 19, 1895, and \$.12 on that of Dec. 1, 1896.¹ Perhaps there is no better simple measure of the actual course of the market than the change in the price of 8-d. nails. This size is used in large quantities; and when assorted orders were required, the extra on it was the same as the required average of extras. But this does not give a perfectly true idea of the changes of price. It is necessary to remember that during the life of the association the prices of the larger nails were increased even more by the increase of the extras on them.

The diagram printed below shows the movement during 1895

¹ *Iron Age*, Dec. 10, 1896, p. 1161.

and 1896 of the prices of 8-d. wire nails, of No. 11 wire, from which these nails are made, of wire rods and of steel billets. It is based upon the Pittsburg quotations, as published from week to week in the *Iron Age*. No. 11 wire costs about \$.10 per cwt. more than the base sizes quoted in the market reports.



Iron and steel went through a notable boom and collapse in 1895. Without any marked change in the general condition of the country, without any corresponding change in general prices,

without any strong parallel movement in other countries, the prices of crude iron and steel, and other prices directly dependent on them, rose fast and steadily for some five months, and fell even faster in the next three. Between April 1 and September 15 steel billets rose more than sixty per cent, while by December 15 they were within ten per cent of the old level. It is not easy to get a fully satisfactory explanation of the rise. Near the end of March the Carnegie interests contributed to start it by very large purchases of iron. About the same time the H. C. Frick Coke Company announced an advance of fifteen per cent in wages, and an advance of more than thirty per cent in the price of coke, to take effect April 1;¹ and other coke shippers followed their lead. This made a great increase in the cost of producing and working iron and steel. A little later labor disputes threatened to stop production; and when they were settled, it was by an advance of wages. Other advances were announced by the great steel companies during May and June. These increases seemed to justify and to fasten the higher prices. Men gathered confidence that good times were coming, and that prices were not only to stay up, but to go higher. This confidence, reacting, bred demand; and renewed demand pushed prices higher and higher. The success of the nail combination, and the temporary activity which the advance in nails and the expectation of advance occasioned in the market, were among the causes which contributed to these phenomena. It is doubtful whether the rise of raw material had the slightest influence upon the price of nails; for the rise of nails began before that of steel, was eminently artificial, and was continued after the raw material had sunk nearly to its former price.

III. *The Interests of Dealers and Laborers.*

The undesirability, from the standpoint of those who want to use nails, of any restriction upon the use of them and of having to pay high prices to get them, is too obvious to be insisted on. The retail hardware dealers suffered with the

¹ *Iron Age*, March 21, 1895, p. 607.

consumers. Their sales were curtailed, without a proportionate increase in their profit per pound. They had to bear the brunt of their customers' complaints about the price of nails. They complained, also, of the annoyance which was caused by the new card of extras, under which the cheapest nails cost fifty cents per keg more than the nominal base price. When their customers saw nails quoted in the papers at \$2.25, it was hard to convince them that the actual wholesale price of 60-d. spikes was \$2.75. The jobbers, on the other hand, made large profits on the stocks which they bought before the pool was formed, or soon after; and they were enabled, by the system of discounts and rebates, which the manufacturers maintained, to make at least their usual profit on current purchases. This policy was meant to make the jobbers friendly to the association; and it seems to have been largely successful.

Some of the mills showed a disposition to raise wages as they advanced their prices, and so to make some little division of profits with their men. It was reported that one of the great companies gave its men an advance of ten per cent in June, 1895,¹ and ten per cent more about March 1, 1896;² that another raised wages ten per cent in July, 1895;³ and that a third, after a strike, in September, 1895, advanced its wire-drawers ten per cent and fifteen per cent, and its nail-makers five per cent.⁴ But the last-mentioned company, which at its full capacity employs about one thousand hands, at one time cut down its force to about three hundred. This reduction is proportional to the reduction of total sales from 500,000 kegs a month to 150,000. It seems safe to assume that the other companies must have made similar reductions. If half or two-thirds of the laborers were thus thrown out of work, they were not much helped by a small increase in the rate of wages paid to the rest.

The restriction of the employment of labor did not stop at the nail mills; there was a diffused effect which was probably greater, though it is less traceable. There is reason to believe

¹ *Iron Age*, June 20, 1895, p. 1288.

² *Ibid.*, March 12, 1896, p. 656.

³ *Ibid.*, July 18, 1895, p. 129.

⁴ *Ibid.*, Sept. 5, 1895, p. 496.

that building, and especially repairing, were perceptibly retarded.¹ To raise the retail price of a keg of nails, say from two dollars to four, must under any circumstances diminish purchases to some extent. The effect will be greater if the circumstances make it seem likely that the rise is temporary. In the present case, there was the added influence of a lively conviction of the buyers that the manufacturers were trying to rob them. If a man thinks that an effort is made to impose upon him, he will often subject himself to a good deal of inconvenience, for the satisfaction of thinking that he has not been imposed on. It is likely that thousands of men did without improvements which they could not afford to do without, because they would not submit to what they regarded as the arbitrary demands of the nail combination. It was, perhaps, in part because the manufacturers left this moral effect out of their reckoning, that the extent of the diminution of demand took them by surprise. Their calculations doubtless accorded with the view recently expressed by a small manufacturer, who experienced a strong demand while the association lasted, because he sold nails a little under the association price. He said:

I do not think that the high price of nails restricted consumption to any perceptible extent. The item of nails in the cost of building is a very small one, and it was not over five or six years ago that the price was about the same as that fixed by the recent combination.

Consumption was not so small as production during the last months of 1895, or perhaps during the early months of 1896, while the jobbers still had some part of the stocks which they had laid in about the time the pool was formed. But the best information obtainable makes it appear that, during 1896, consumption as well as production must have been small beyond any possible expectation.

IV. *The Interest of the Manufacturers.*

It is apparently the general opinion that, quite aside from any consideration of the public welfare, and looking only to the pecuniary interest of the manufacturers, the combination

¹ *Iron Age*, June 25, 1896, pp. 1490-1493.

carried the policy of high prices too far. The association went to pieces after eighteen months, and prices went down to their former level; therefore it is assumed that the combination failed or, at least, that it would have accomplished its purpose more fully by a more moderate policy. The matter does not seem to me so simple. Mr. Parks, who was undoubtedly the guiding spirit in the whole transaction, went into it with eyes very wide open. He had already been connected with several tack combinations managed on the same principles. Of course they came to a rather speedy end; but Mr. Parks seems to have counted their experience as favorable, on the whole, to the policy of a short life and a merry one for pools. Moreover, he still maintains the wisdom of the course that he counseled. When the association collapsed, he said that it had lived longer than its most sanguine promoters expected, and as a financial undertaking had been an unprecedented success.¹ The manner of argument of a man who was connected with the association throughout its existence is as follows:

Suppose we had put up the price \$.15 a keg. A great many men who had had their eye on the nail business, would have said: "Those men have put up the price \$.15, and they will probably make it \$.25. There is going to be money in the nail business. I will go in." But when we put up the price \$1.50, they said: "Those fellows are lunatics. They can't hold together. There will be a smash before they get fairly started. I will keep out of that business." As a matter of fact, we had hardly any new competition during the first year of the association. The new competition came mostly after the beginning of the second year. Then men began to say: "Those fellows have kept together twelve months, and they will probably do it a while longer. They are making a lot of money. I will try to get a slice of it." I am sure we kept the association going longer with a high price than we could have kept it going with a low price. I don't believe it would have lasted six months with a raise of \$.25. The high price frightened off some people, and gave us plenty of money to buy off the rest.

It is hardly possible to over-emphasize the distinction between the great consolidations of which the so-called sugar trust may

¹ *Iron Age*, Dec. 3, 1896, p. 1108.

be taken as a type — consolidations which it may not be improper to distinguish specifically as trusts, because the typical examples were first united under the proper trust form of organization — and pools like the nail association. The broad differences of organization have their root partly in the conditions of the businesses concerned, and partly, it may be, in the mental characteristics of the managers; and they issue in great differences of policy and power. It would probably not be impossible to bring the making of wire nails under the control of one great company; but it would be much more difficult than it was to do the like with the refining of sugar. To refine sugar by methods commercially practicable to-day, a man must have hundreds of thousands of dollars to put at the risk of the business. With ten thousand dollars and six weeks' time, however, any man who likes can become a manufacturer of wire nails. A little factory can make them, not quite so cheaply as the great establishments which make their own wire, but at no very great disadvantage. It needs only a small rise above the lowest price at which the best mills can pay interest on the cost of their plants, to enable an indefinite number of small mills to start, making each its twenty-five or fifty kegs per day. This is the weakness of any form of combination in a business of this character — the possibility of a new factory in every thriving town.

No limit can be named to the success of skillful and determined managers of a centralized combination or trust, in any line, in crushing competition. An abnormal lowering of price in the local field of a small competitor is a weapon which needs nothing but persistence to make it inevitably fatal to him; and the revenues which the trust draws constantly from other fields, even if it loses in the region of cut prices, give it an unlimited power of persistence. There is no doubt of the trust's ability to destroy any competitor of a size which does not approach its own. This process is troublesome, however, and somewhat expensive; and in a case in which new competitors can spring up with so little money and in so short a time, the query is whether the situation of the trust would not be unpleasantly like that of a man fighting with mosquitoes.

It probably would be so, unless the trust should be content with a policy of greater moderation in its profits than any trust has yet had the self-denial to adopt. Any trust, having once got control of the market, could make it impossible for any competitor to establish a business which would pay a profit for a day, or would need any attention from the trust to make it disappear. This possibility depends upon the power of the trust to do for society such service as no competitor could do. The representatives of the trusts have not been negligent in setting forth the economies which they are able to effect: the production of all goods by the most efficient plants; the universal use of all improvements, patented or not; the economizing and full use of expert knowledge; the incorporation of subsidiary industries, like the making of packages; the saving of transportation by shipping from the factory nearest the consumer. Greatest of all, perhaps, and most decisive, because it is the economy that is absolutely out of the reach of a competitor, is the commercial economy that depends upon the control of the market — the saving of the expense of inducing customers to buy of this concern and not of that. A trust which should make over the greater part of these savings to its customers, and should content itself with prices which would give it only fifteen or twenty per cent per annum on the value of its productive property, as measured by the cost of replacing it, would probably never be troubled with any shadow of competition. But the general conclusion of competent and disinterested investigators seems to be that, up to the present time, every trust, when its control of the market has been established, has not only kept the whole of the savings of consolidation to itself, but has taken from the public something besides, making prices somewhat higher than they would have been under full competition.

The form of organization of a pool is less unattractive than that of a full consolidation, to a man who values his independent position and dislikes to become an employee; but there is in it as much less power as there is less unity. Under a pool, the economy of closing some establishments may be effected

by paying them a bonus, as was done for years by the steel-rail pool. The nail men dealt with outside mills by this plan, but under circumstances and in a way which hardly permit it to be regarded as an economy. It is probable that a pool, with production strictly limited to what the market will easily absorb at the prices fixed, might make some saving in the commercial expenses of advertising and selling, particularly if the circumstances and the policy of the pool were such as to give it a character of comparative permanence. The nail men were probably not able to make any savings of this class. The other economies which are possible to a trust seem to be out of the reach of a pool, while the central organization and the system of mutual watching seem even to add something to the cost of superintendence. It is probably safe to say that nearly all the gain which any manufacturers may make through a pool is made by raising their selling prices.

It can be maintained with a good show of reason that the nail men would have got more profit in the course of years from the policy of full consolidation, with prices permanently fixed low enough to make competition impossible. But experience has not yet shown this policy to be practically attainable in our present stage of civilization. Between that extreme and the other, which the nail men chose, it is doubtful whether there is any mean which they would have found golden. The choice practically open to them appears to have lain between a tolerably large profit, which might possibly last two or three years, and a very large one, which might be expected to last six months or a year. They chose the very large one; and they kept it, or at least kept the price up, for eighteen months. It is true that a very large part of the profits, especially in the later months, was consumed in subsidies and other expenses of the association. Some well-informed men, intimately connected with the trade and friendly to the manufacturers, think that their policy was short-sighted. The question has more sides than one, however, and it seems possible to make out a very good case for the view that the manufacturers did not choose the least profitable course.

V. The Interest of the Public.

It may not make much difference to the manufacturer whether he reduces his costs or raises his selling price; but it makes a great difference to the consumer. Aside from any lowering of prices, it is to the public interest that economies be made—that a given product be obtained with less cost and less exertion. If a consolidated trust would sell as cheaply as competing producers would have to sell, keeping to itself the whole of its economies but taking nothing more, the economies would benefit the public somewhat in the end. The production of wealth and the sum of capital are certainly increased by them; and such increase of capital and of production tends in itself to the general good. The actual policy of the trusts, in taking from the public something in higher prices besides their gain through saving, complicates the question; but there is a very considerable gulf between the effects of a trust, like the American Sugar Refining Co., and the effects of a pool, like the Nail Association. The actual lessening of the human effort that is required for a given result does accompany the trust, and we are all privileged at least to cherish the pious hope that some small fraction of the gain may ultimately work its way around to us. The pool, on the other hand, does not effect any saving of human effort. Its avowed purpose is to increase its members' share of the products of such effort. Its form of organization is probably incapable of producing the greater part of the social benefits which the trusts lay claim to; and it does not make much pretence of trying to produce them.

The claim of the trusts to a socially desirable effect on price takes two forms—that they make prices lower and that they make them steadier. The former effect has probably not appeared permanently in any instance; and the latter does not seem to have appeared generally. Both effects are, however, within their power. Unsteadiness of price, so far as it results from the action of trusts which have once established their

control of the market, is generally the result of high prices. The raising of prices above the competitive level causes competition to develop; and competition can be dislodged only by buying it out or by sinking prices below the competitive level. The trusts are regarded by their managers as permanent institutions, and they tend toward the policy which the managers think likely to bring the greatest net revenue in the long run. They tend toward a comparatively moderate forcing of present profits, with a fair degree of attention to the future. In consequence, if the prices of their goods are not steadier than they would be under full competition, they are probably not much less steady. The nail pool, on the other hand, was an ephemeral thing, designed for a quick rush into the market, a grasping of whatever gains might be within reach, and then — collapse. Its purpose was that of a corner — to get the greatest possible amount of profit out of those who had to have nails within a limited time. Its effect, therefore, was a great exaggeration of the normal unsteadiness of prices.

Too great productive capacity is one of the reasons which are regularly given for forming combinations. The providing of machinery for making far more goods than are demanded at the necessary prices is one of the wastes of competition. Of course it would not be practicable, with the completest centralization, to keep the nominal capacity of machinery down to the actual demand; for variations in the quantities demanded, variations in the kinds demanded, the necessity of being able to make many kinds at each of several places — all forbid an exact adjustment. There is no doubt, however, that here a trust can effect a saving over competitive methods, though it may nullify this benefit more or less completely by stimulating new competition through too high prices. The policy of the nail pool, on the other hand, greatly stimulated the tendency to the overproduction of machinery. The association tried to check it by subsidies to machinery-makers, but with only partial success. Such makers of nail machinery as would accept orders were overwhelmed with them. It was said that persons anxious to get into the nail business “overbid each other, and lucky buyers

of machines were offered premiums for their bargains.”¹ When the pool collapsed, the machines which the artificially stimulated demand had called forth became, for the most part, dead property. Both to the owners and to society, they are an almost entire waste of capital.

In this way the pool aggravated one of the fundamental difficulties of the situation which it was formed to change. This is perhaps its most visibly lasting effect, and from it a serious obstacle arises in the way of renewing the pool. So far as their current business is concerned, the manufacturers might have been in no very different position if the pool had not been formed. The price of nails is now about the same, allowing for the change of extras, as in the spring of 1895. Of the hundreds of new machines which were set up during the eighteen months of fever, a large part have ceased to turn out nails, and as the months go by, others will cease. Some of the older and less efficient will go, one by one, to the scrap pile, and some of the newer may replace them. With the continued progress of invention the rest will doubtless grow relatively less and less efficient. The growth of the country, too, will make a fixed number of machines continually less important as a possible factor in the market. These, however, are processes of years. For a long time to come the hundreds of machines which stand ready to start at a week's notice must be reckoned with by any new combination. A small manufacturer, who was not in the pool, wrote in February, 1897: “I doubt if there will be another combine for a year, but I think it will ultimately come.” It will come, as surely as seedtime and harvest; but not in one year, nor, in all probability, in two. It will probably not be possible, until several years have gone by, to form another association which shall effectively control the market.

VI. *Conclusions.*

Only two rather small classes are probably ready to give thanks for the concentrations of industrial and social power which are loosely covered by the name of trusts — those who

¹ *Iron Age*, Dec. 10, 1896, p. 1147.

draw wealth and power from them, and those who, desiring a general absorption of the control of production by society, think that the trusts are forwarding their aim; and some of the former class perhaps would not give thanks without certain haltings of conscience, while many of the latter account the case as one of those in which God makes the wrath of man to praise him. But an unfavorable judgment of the economic and social effects of an institution does not at all involve an unfavorable ethical judgment of the men who visibly represent it — at least in comparison with the rest of the community. The members of the nail association did what the rest of us would have done in their places. One who was active in forming the association gives this statement of their point of view:

There is nail machinery enough in this country to produce four times as many nails as can be sold. When there is no pool the makers simply cut each other's throats. Some people think there is something wicked about pools. When we were trying to get up the nail pool, I talked with directors of companies who held up their hands against going into any sort of combination. I said to them, "How much did you make last year?" "Not a cent." "Are you making anything now?" "No." "Well, what do you propose to do? Sit here and lose what capital you have got in the business?" Some of them thought they could run along until some of the weak concerns died off. But I tell you plants don't die. If a concern fails, they reorganize it. They buy in the plant cheap, they have got rid of the old debts, and they are in better shape to compete than ever. There is only one way to make any money in a business like the nail business, and that is to have a pool.

This is the aspect that things would wear to us if we were in the position of the manufacturers. Some of us are perhaps opposed to combinations; but so were some that went into the nail pool. In weighing any man's opposition to combinations, it may be doubted whether it is of the sort to keep him out of them, till he has sailed the strait between failing profits and the trust, and has passed the siren voice.

The trusts simply do, with larger resources and higher organization, the things that every manager of a competitive business is trying to do. It is possible that we see the char-

acter of such things better when they are done on the larger scale; it may be one of the missions of the trusts to give us clearer and higher notions of ethics. But it seems probable that, if we begin to cast stones, the houses of the trusts will not be the only ones to suffer. If it is asserted to be wrong to crowd up the prices of the things we sell and to crowd down the prices of things we buy, wrong to make our business large by the destruction of our neighbor's, a good deal may be said for the ethical superiority of the altruistic man who should refuse to do these things; but no ethical distinction can be drawn between the man who does them strongly and successfully and the man who is only able to do them with less strength and less success.

The mechanism of the trust, properly so called, is perhaps not unworthy to be ranked among the greatest inventions of this century, either as a monument of intellectual acuteness or as an engine of momentous social effects. Like most of those other inventions which are more unanimously classed as useful, and for which individuals get credit, the invention of the trust did not really depend on the activity of any particular men. If neither Bell, nor Reis, nor McDonough, nor Edison had lived, a score of other men were looking for the telephone, and would soon have discovered it. Scientific and technical knowledge had reached a point from which it could not but be discovered; and no man could do more than hasten the discovery by a little. Just so, the development of the pool, the trust and the giant consolidated corporation was inevitable in the social and economic conditions of our age. If the world had lacked Mr. Rockefeller and his associates, it had other men of business and other lawyers; and it would not long have lacked the trust.

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